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NOTICE OF ALLOWANCE AND FEE(S) DUE

29471 7590 03/24/2010 MCCRACKEN & FRANK LLP 311 S. WACKER DRIVE SUITE 2500

CHICAGO, IL 60606

EXAMINER						
ALMO, KHAREEM E						
ART UNIT PAPER NUMBER						
2816	•					
DATE MAILED: 03/24/2	010					

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.			
10/556,647	11/10/2005	Michael Robbe	28944/40163	6584			
TITLE OF INVENTION: VOLTAGE SHIFT CONTROL CIRCUIT FOR PLL							

APPLN. TYPE	APPLN, TYPE SMALL ENTITY		PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	06/24/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

appropriate. All further indicated unless correct maintenance fee notifica	correspondence includir ed below or directed oth	of transmitting the 1330 ig the Patent, advance or ierwise in Block 1, by (a	rders and notification of a a) specifying a new corre	naintenance fees wil spondence address; a	II be ma and/or (b	iled to the current o) indicating a sepa	correspondence address as rate "FEE ADDRESS" for
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311 S. WACKE SUITE 2500		/2010	I be	Certi	ficate of	Mailing or Transi	nission deposited with the United t class mail in an envelope above, or being facsimile ate indicated below.
CHICAGO, IL 6	00006						(Depositor's name)
			<u> </u>				(Signature)
							(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTORN	EY DOCKET NO.	CONFIRMATION NO.
10/556,647 TITLE OF INVENTION	1 I/I0/2005 I: VOLTAGE SHIFT CO	ONTROL CIRCUIT FOR	Michael Robbe		28	944/40163	6584
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE	FEE :	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0		\$1810	06/24/2010
EXAM	IINER	ART UNIT	CLASS-SUBCLASS	1			
ALMO, KI	IAREEM E	2816	327-156000	•			
"Fee Address" ind PTO/SB/47; Rev 03-0 Number is required. 3. ASSIGNEE NAME A	ondence address (or Cha 3/122) attached. ication (or "Fee Address 12 or more recent) attach ND RESIDENCE DAT/ less an assignee is ident h in 37 CFR 3.II. Comp	nge of Correspondence "Indication form ed. Use of a Customer A TO BE PRINTED ON 2	2. For printing on the p (1) the names of up to or agents OR, alternati (2) the name of a singl registered attorney or a 2 registered patent atto listed, no name will be THE PATENT (print or ty) data will appear on the p T a substitute for filing an (B) RESIDENCE: (CTT)	3 registered patent vely, e firm (having as a r agent) and the names rneys or agents. If no printed.	attorney member : s of up to o name i	a 2outfield below, the de	ocument has been filed for
Please check the appropr	iate assignee category or	categories (will not be pr	inted on the patent):	Individual 🖵 Con	poration	or other private gro	up entity 🚨 Government
4a. The following fee(s) Issue Fee Publication Fee (N	vo small entity discount p		o. Payment of Fee(s): (Plea A check is enclosed. Payment by credit car The Director is hereby overpayment, to Depo	d. Form PTO-2038	is attache	ed.	shown above) ficiency, or credit any n extra copy of this form).
	s SMALL ENTITY state	is. See 37 CFR 1.27.	☐ b. Applicant is no lon				
NOTE: The Issue Fee an interest as shown by the	d Publication Fee (if req records of the United Sta	uired) will not be accepted tes Patent and Trademark	d from anyone other than t Office.	he applicant; a regist	tered atto	orney or agent; or th	e assignee or other party in
Authorized Signature				Date			
Typed or printed nam				Registration No			
This collection of inform an application. Confiden submitting the complete this form and/or suggest Box 1450, Alexandria, V Alexandria, Virginia 223	nation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this but 'irginia 22313-1450. DC k13-1450.	FR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the O NOT SEND FEES OR (on is required to obtain or i 1.14. This collection is est depending upon the indiv e Chief Information Office COMPLETED FORMS To	retain a benefit by the timated to take 12 mi ridual case. Any con er, U.S. Patent and T D THIS ADDRESS.	e public inutes to nments o rademar SEND T	which is to file (and complete, includin on the amount of tir k Office, U.S. Depa TO: Commissioner i	by the USPTO to process) g gathering, preparing, and ne you require to complete utment of Commerce, P.O. for Patents, P.O. Box 1450,

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PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



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29471	7590 03/24/2010		EXAM	UNER	
MCCRACKEN	& FRANK LLP	ALMO, KI	IAREEM E		
311 S. WACKEI	R DRIVE		ART UNIT	PAPER NUMBER	
SUITE 2500 CHICAGO, IL 6	0606	2816 DATE MAII ED: 03/24/201	0		

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 88 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 88 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Application No. Applicant(s) 10/556,647 ROBBE ET AL. Notice of Allowability Examiner Art Unit KHAREEM E ALMO 2816 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. 1. This communication is responsive to papers filed 1/14/2010. 2. The allowed claim(s) is/are 1-14.

International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

3. Copies of the certified copies of the priority documents have been received in this national stage application from the

3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

2. Certified copies of the priority documents have been received in Application No.

All b) ☐ Some* c) ☐ None of the:

1. ☒ Certified copies of the priority documents have been received.

	noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.
4.	□ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5.	CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
	(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
	1) ☐ hereto or 2) ☐ to Paper No./Mail Date
	(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of
	Paper No./Mail Date
	Identifying indicise such se the application number (see 37 CED 1.84(n)) should be written on the drawings in the front (not the back) of

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) ceach sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

 DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submit 	ed. Note th
attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.	

attached Examiner's comment regarding F	REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.	

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- 2. Notice of Draftperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO/SB/08),
 Paper No./Mail Date
- Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. ☐ Notice of Informal Patent Application
- 6. Interview Summary (PTO-413), Paper No./Mail Date .
- 7.

 Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. 🔲 Other _____.

Attachment/c)

Application/Control Number: 10/556,647 Page 2

Art Unit: 2816

DETAILED ACTION

Allowable Subject Matter

Claims 1-14 are allowed.

2. The following is an examiner's statement of reasons for allowance:

With respect to claim 1, the prior art of record fails to disclose wherein the charging means includes a first operational amplifier and the polarization means includes a second operational amplifier in combination with the voltage shift capacitor having a first terminal connected to an output of the phase comparator and a second terminal connected to the input of the voltage controlled oscillator of a phase locked loop

- 3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance"
- 4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAREEM E. ALMO whose telephone number is (571)272-5524. The examiner can normally be reached on Mon-Fri (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-1736. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2816

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Khareem E Almo/ Examiner, Art Unit 2816 /Lincoln Donovan/ Supervisory Patent Examiner, Art Unit 2816